

## NEUTRON MEASUREMENT METHOD FOR DETERMINING POROSITY OF A FORMATION SURROUNDING A BOREHOLE.

The invention concerns a neutron measurement method for determining porosity of an earth formation surrounding a borehole comprising:

- conveying a tool along said borehole, wherein said tool comprises a source of neutron radiation and at least one detector axially spaced from said source;
- generating measured detector response for said at least one detector that is indicative of neutron radiation from said source interacting with said earth formations;
- operating said measured detector response with a predetermined mathematical equation and thereby obtaining corrected detector response that is independent of the density of said earth formation; and
- determining porosity of the earth formation surrounding the borehole from said corrected detector response.

The invention also relates to a system implementing said method.